

## ABSTRACT

An apparatus to retain an assembled component on one side of a double-sided printed circuit board during reflow of other components subsequently positioned on an opposite side of the double-sided printed circuit board and methods for manufacturing and using the same. The retainer includes a heat-shrinkable member and a retaining member. Being formed from a heat-shrinkable material, the heat-shrinkable member is configured to receive a post extending through an opening formed in a double-sided printed circuit board from a component previously assembled on one side thereof. The retaining member is coupled with the heat-shrinkable member, and the double-sided printed circuit board is disposed substantially between the retaining member and the component. The heat-shrinkable member is configured to shrinkably engage the post when an opposite side of the double-sided printed circuit board is populated and reflowed, retaining the inverted component on the double-sided printed circuit board.